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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTEO SANTINATO,
ETTORE ARIONE, and GIORGIO BRAGHINI

Appeal 2015-007321¹
Application 12/886,618²
Technology Center 3600

Before BIBHU R. MOHANTY, MATTHEW S. MEYERS, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 2–6, 8, 9, 11–16, and 18–27. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

¹ Our decision references Appellants' Appeal Brief ("Appeal Br.," filed January 5, 2015), and Reply Brief ("Reply Br.," filed July 31, 2015), the Examiner's Supplemental Answer ("Ans.," mailed June 17, 2015) and Final Office Action ("Final Act.," mailed July 22, 2014).

² Appellants identify Whirlpool Corporation as the real party in interest (Appeal Br. 2).

CLAIMED INVENTION

Appellants' claims relate generally "to an electronic system for power/energy consumption management of one or more domestic appliances, which is routinely informed on actual energy tariff through a network control unit" (Spec. ¶ 2).

Claims 18, 19, and 20 are the independent claims on appeal. Claim 18, reproduced below with bracketing matter added, is illustrative of the subject matter on appeal:

18. An electronic system for power consumption management of a domestic appliance having a working cycle, said domestic appliance selected from the group comprising a clothes washing machine, a clothes dryer, a dishwasher, a refrigerator, a freezer, or an ice maker, the system comprising:

[a] a user interface displaying:

[b] the working cycle;

[c] a plurality of switch-on times for the domestic appliance comprising at least a current switch-on time and at least one future switch-on time for the working cycle; and

[d] a current energy cost of executing the working cycle corresponding to the current switch-on time and a future cost of executing the working cycle corresponding to each of the at least one future switch-on times based on actual energy information to define corresponding pairs of switch-on time and energy cost; and

[e] a selector key coupled with the user interface and configured to select one of the plurality of pairs of switch-on time and corresponding energy cost;

[f] wherein a user is able to select a desired switch-on time for the domestic appliance from the plurality of pairs of switch-on time and corresponding energy cost based on a user's cost preference.

REJECTIONS

Claims 11–16 and 19 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.³

Claims 2, 4–6, 8, 18–21, and 23–26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dinkin (US 6,591,253 B1, iss. July 8, 2003) and Schweickart (US 6,252,883 B1, iss. June 26, 2001).

Claims 3, 9, 11–16, 22, and 27 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dinkin, Schweickart, and Ehlers (US 2004/0133314 A1, pub. July 8, 2004).

ANALYSIS

Non-Statutory Subject Matter

Independent claim 19 and dependent claims 11–16

Appellants argue claims 11–16 and 19 as a group (*see* Reply Br. 1–4). We select independent claim 19 as representative. The remaining claims stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Alice Corp. Pty. Ltd. v. CLS Bank International, 134 S. Ct. 2347 (2014) identifies a two-step framework for determining whether claimed subject matter is judicially-excepted from patent eligibility under § 101.

According to *Alice* step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 134 S. Ct. at 2355.

The “directed to” inquiry []cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon—after all, they take place in the physical world. *See Mayo*, 132

³ The Examiner entered this rejection as a new ground in the Answer (*see* Ans. 4).

S. Ct. at 1293 (“For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”) Rather, the “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F. 3d 1369, 1375, 2016 WL 1393573, at *5 (Fed. Cir. 2016) (inquiring into “the focus of the claimed advance over the prior art”).

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016). “The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (citing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

In rejecting claims 11–16 and 19, the Examiner finds

the claims are directed to allowing consumers to execute a working cycle through selection of a cost/time pair, which is considered to be an abstract idea inasmuch as such activity is considered both a fundamental economic practice and a method of organizing human activity by providing an opportunity for parties to enter into a specified agreement.

(Ans. 5). The Examiner also finds that “[t]he elements of the processes of the invention, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone” (*id.* at 6), and “[t]he elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer functionalities

which are well-understood, routine and conventional activities previously known to the industry” (*id.* at 6–7).

Appellants argue that independent claim 19 is not directed to an abstract idea; but rather, claim 19 “relates to providing a process by which a user can select a time to start a working cycle of a domestic appliance based on pairs of switch-on time and cost values” (Reply Br. 2). We cannot agree.

According to the Specification, “[d]aily energy demand isn’t flat; peaks of energy are generated during the day which creates variable demand and increases a utility company's charge to consumers” (Spec. ¶ 4). The Specification proposes that “it would be advantageous to design a new generation of appliances that are able to manage power consumption with different tariffs on the base of signed power supply contract” (*id.* ¶ 5), and identifies an “object of the present invention is to make the user aware of potential energy cost savings in selecting different delayed switch-on times for each appliance” (*id.* ¶ 6). The Specification describes achieving this by “add[ing] minimal modifications to [a] standard user interface” (*id.* ¶ 59) whereby

[p]ressing the ‘selector’ key on the appliance, the display scrolls through a variety of opportunities showing the corresponding charges (Euro, \$/cent or other currency). The user accepts a selection by pressing the usual ‘start’ key. The appliance will start its working based on the time (the input can be a delay time or the time on which the appliance has to start actually its program) and corresponding charge that was displayed.
(*Id.* ¶ 60).

Under step one of the framework set forth in *Alice*, we agree with the Examiner that the invention is drawn to an abstract idea inasmuch as it “provid[es] an opportunity for parties to enter into a specified agreement”

(Ans. 5), which in this case provides a user with the opportunity to, e.g., “select a time to start a working cycle of a domestic appliance based on pairs of switch-on time and cost values” (Reply Br. 2). In making this determination, we note that the steps recited in independent claim 19 involve nothing more than providing data, displaying data, i.e., “pairs of switch-on time and energy cost,” and “providing for a selecting of one of the pairs” utilizing a user interface with “minimal modifications to [a] standard user interface” (*see* Spec. ¶ 59).

In this regard, we find the steps of independent claim 19 are similar to the steps that the Federal Circuit determined were patent ineligible in *Electric Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016). In *Electric Power*, the method claims at issue were directed to performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results. *Elec. Power Grp. LLC*, 830 F.3d at 1351–52. The Federal Circuit held that the claims were directed to an abstract idea, explaining that “[t]he advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions.” *Elec. Power Grp.*, 830 F.3d at 1354.

More recently, the concept of “using an electronic device to obtain clinical trial data that would otherwise be collected by pen-and-paper diary, and analyzing the data to decide whether to prompt action” was found to be an abstract idea. *eResearchTechnology, Inc. v. CRF, Inc.*, 186 F. Supp. 3d 463, 473 (W.D. Pa. 2016), *aff’d.*, No. 2016-2281, 2017 WL 1033672 (mem.) (Fed. Cir. Mar. 17, 2017) (citing *OIP Techs., Inc. v. Amazon.com, Inc.*, 788

F.3d 1359, 1361–62 (Fed.Cir.2015) (Finding a method comprising (1) testing prices, (2) gathering statistics about how customers reacted to the prices, (3) using that data to estimate outcomes, and (4) acting on estimated outcomes (i.e., automatically selecting and offering new prices based on estimated outcome) to be directed to the abstract idea of price optimization.); *see also Intellectual Ventures I LLC v. Erie Indem. Co.*, 2015 U.S. Dist. LEXIS 129153, at *94 (finding a method of “gathering, storing, and acting on data based on predetermined rules” to be directed to an abstract idea).

Accordingly, we find that independent claim 19 involves nothing more than providing data, displaying data, selecting data — activities squarely within the realm of abstract ideas. *See, e.g., Elec. Power Grp., LLC*, 830 F.3d 1353–54 (when “the focus of the asserted claims” is “on collecting information, analyzing it, and displaying certain results of the collection and analysis,” the claims are directed to an abstract idea).

Step two is “a search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355 (alteration in original) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S Ct. 1289, 1294 (2012)).

And, similar to the situation in *Electric Power*, we find nothing sufficient to remove the claims from the class of subject matter ineligible for patenting. As the court explained in *Electric Power*, “merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based

category of abstract ideas.” *Elec. Power Grp.*, 830 F.3d at 1355. Furthermore, pairing a plurality of switch-on times and corresponding energy costs does not add inventiveness because it too requires the application of conventional, well-known analytical steps. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed.Cir.2014) (“[T]he claimed sequence of steps comprises only ‘conventional steps, specified at a high level of generality,’ which is insufficient to supply an ‘inventive concept.’”) (citing *Alice*, 134 S. Ct. at 2357) (internal citations omitted). And, there is no indication in the record that any specialized computer hardware or other “inventive” computer components are required. As noted above, the Specification describes “add[ing] minimal modifications to [a] standard user interface” (Spec. ¶ 59).

Appellants also argue that the claims are patent-eligible because they require “a specific set of domestic appliances that have a working cycle and steps such as displaying on a user interface and providing for a selecting of one of the pairs of switch-on time and corresponding energy cost so that the working cycle may be executed for the corresponding energy cost” (Reply Br. 4).

Although the Supreme Court has described “the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption,” *Alice*, 134 S. Ct. at 2354, characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.”

Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). Although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

In view of the foregoing, we sustain the Examiner’s rejection under 35 U.S.C. § 101 of independent claim 19 and claims 11–16 which fall with independent claim 19.

Obviousness

Independent claim 18 and dependent claims 4–6 and 8

We are persuaded by Appellants’ argument that the Examiner erred in rejecting independent claim 18 under 35 U.S.C. § 103(a) because Dinkin, upon which the Examiner relies, fails to disclose or suggest limitations [c] and [d] of independent claim which recite generally “a user interface displaying”

a plurality of switch-on times for the domestic appliance comprising at least a current switch-on time and at least one future switch-on time for the working cycle and a current energy cost of executing the working cycle corresponding to the current switch-on time and a future cost of executing the working cycle corresponding to each of the at least one future switch-on times based on actual energy information to define corresponding pairs of switch-on time and energy cost and further fails to disclose a user interface displaying the working cycle of the appliance and the pairs of switch-on times and corresponding energy costs.

(Appeal Br. 11).

The Examiner maintains that the rejection is proper, and cites Dinkin at column 3, lines 29–39; column 3, line 66 through column 4, line 3; column 4, lines 10–19; column 4, lines 58 through column 5, line 1; claim

12; and Figures 1 and 2, as disclosing the argued limitations (*see* Final Act. 3–6; *see also* Ans. 19–21). However, we agree with Appellants that there is nothing in the cited portions that discloses or suggests the argued limitations.

In making this determination, we note that Dinkin is directed to a “system for real time pricing of fine-grained resources which permits efficient and intelligent multi-parameter purchasing/consumption of fine-grained resources” (Dinkin, col. 1, ll. 13–16). Dinkin discloses that a “user may program a time schedule, temperature set points or the like into central processing unit **12** in its embodiment as a home computer or into the central processing unit portion of a controller associated with a so-called ‘smart house’” (*id.* at col. 4, ll. 15–19). Dinkin further discloses that its system “determine[s] the current and likely future price of various goods or services by utilizing a sophisticated pricing algorithm in combination with communications containing current pricing for those goods or service from one or more source” (*id.* at col. 4, ll. 53–57; *see also id.* at col. 4, ll. 25–51). Next, Dinkin discloses

the periodic usage or consumption of those utilities is scheduled by central processing unit **12**, based upon the real time pricing, both current and predicted. In this manner, for example, it may be possible to utilize central processing unit **12** to vary the start time for an appliance, such as a dishwasher, until such time as the cost of water and electricity reach a daily minimum.

(*Id.* at col. 4, ll. 58–64). Thereafter, Dinkin discloses that “the HVAC system and appliance systems are controlled utilizing central processing unit **12** in accordance with the schedule determined above” (*id.* at col. 5, ll. 12–15).

We have reviewed the cited portions of Dinkin and agree with Appellants that none of the cited portions of Dinkin discloses or suggests the

argued limitations. In particular, we fail to see, and the Examiner does not adequately explain how, Dinkin's disclosure regarding "the prompting of a user for a desired HVAC/appliance schedule" (Ans. 20 (citing Dinkin, col. 4, ll. 10–19)) discloses or suggests the argued limitations. Instead, we agree with Appellants that "[t]he cited portions of Dinkin et al. '253 relied on in the rejection relate to a system by which the central processing unit 12 automatically decides which appliances to run and when based on a predetermined schedule that is based on current and future real time pricing" (Appeal Br. 12). We also agree with Appellants that the "interface means," relied on by the Examiner (*see* Ans. 20 (citing Dinkin, claim 12)), "is not a user interface displaying a working cycle of the appliance" (Appeal Br. 13–14).

In view of the foregoing, we do not sustain the Examiner's rejection of independent claim 18 under 35 U.S.C. § 103(a) as unpatentable over Dinkin and Schweickart. For the same reasons, we also do not sustain the Examiner's rejection of dependent claims 4–6 and 8 which depend from independent claim 18.

Independent claims 19 and 20, and dependent claims 21 and 23–26

Independent claims 19 and 20 include limitations substantially similar to independent claim 18's limitations [c] and [d] discussed above. Therefore, we do not sustain the Examiner's rejection under 35 U.S.C. § 103(a) of independent claims 19 and 20, and claims 21 and 23–26 that

depend therefrom, for the same reasons set forth above with respect to independent claim 18.

Dependent claims 3, 9, 11–16, 22, and 27

Claims 3, 9, 11–16, 22, and 27 depend, directly or indirectly, from one of independent claims 18–20, and thus, incorporate limitations [b] and [c] recited in independent claim 18 or the similar limitations recited in independent claims 19 and 20. The Examiner's rejection with respect to Ehlers, in combination with Dinkin and Schweickart does not cure the above-discussed shortcomings of Dinkin and Schweickart identified by Appellants. Thus, we do not sustain the Examiner's rejection of dependent claims 3, 9, 11–16, 22, and 27 under 35 U.S.C. § 103(a) for the same reasons set forth above with respect to independent claim 18.

DECISION

The Examiner's rejection of claims 11–16 and 19 under 35 U.S.C. § 101 is sustained.

The Examiner's rejections of claims 2–6, 8, 9, 11–16, and 18–27 under 35 U.S.C. § 103(a) are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART